

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 16 JUN 2005

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| Applicant's or agent's file reference 18981/B46 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416) | |
| International application No. PCT/IB 03/04368 | International filing date (day/month/year) 02.10.2003 | Priority date (day/month/year) 02.10.2003 |
| International Patent Classification (IPC) or both national classification and IPC B66B5/28 | | |
| Applicant OTIS ELEVATOR COMPANY | | |



- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

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| Date of submission of the demand 02.08.2004 | Date of completion of this report 17.06.2005 |
| Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016 | Authorized Officer Janssens, G Telephone No. +31 70 340-4588  |

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IB 03/04368

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-7 as originally filed

Claims, Numbers

1-11 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-11 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | 1-11 |
| | No: Claims | |
| Industrial applicability (IA) | Yes: Claims | 1-11 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

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Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following document:

D1: JP 2000203774 (25-07-00)

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and shows (the references in parentheses applying to this document):

Safety device for maintenance personnel in elevators having no machine room and flexible tension member(7), the elevator booth comprising an upper median crosspiece (2) on its roof forming part of its support arcade, the drive machine being(9) fixed at least to the top of a booth guide rail (4) on the side of the casing of the elevator

The subject-matter of claim 1 differs from this known safety device in that it comprises, with symmetry with respect to the median traction plane of the booth or to the median plane of the set of flexible tension members, at least two rigid rods mounted sliding on the crosspiece on one side and approximately parallel to the latter and able to be moved in an active outgoing position projecting from the crosspiece so as to come opposite and simultaneously in contact with a corresponding stop fixed at an adequate height on the booth guide rail, and in an inactive incoming position where they are out of range of said stop corresponding to the normal functioning of

the elevator, the functioning in maintenance or inspection mode of the elevator by a maintenance operator on the booth roof only being allowed at the outgoing position of the rods where a safety space for the maintenance operator on a working platform on the booth roof is

embodied by the fact of applying the outgoing rods on said guide rail stop .

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as to avoid that the support arcade suffers from torsional forces when the safety device contacts the guide rail stop. When the support arcade deforms under the torsional forces, this causes the tension

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member to shift on his pulleys mounted on the arcade.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

The symmetrical arrangement of the rods is not disclosed in the available prior art.

Claims 2-11 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.